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Market Models & Metrics

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Magellan Fund

New Manager; New Performance?

November 2, 2005

Fidelity announced new management for *Magellan Fund* this week. *Magellan* is the erstwhile “800 pound gorilla” of the fund industry...now perhaps more like 650 pounds after years of mediocre performance and investor withdrawals. After a dozen years under Robert Stansky, Harry Lange is taking charge. When managers change, performance may change. This paper examines implications.

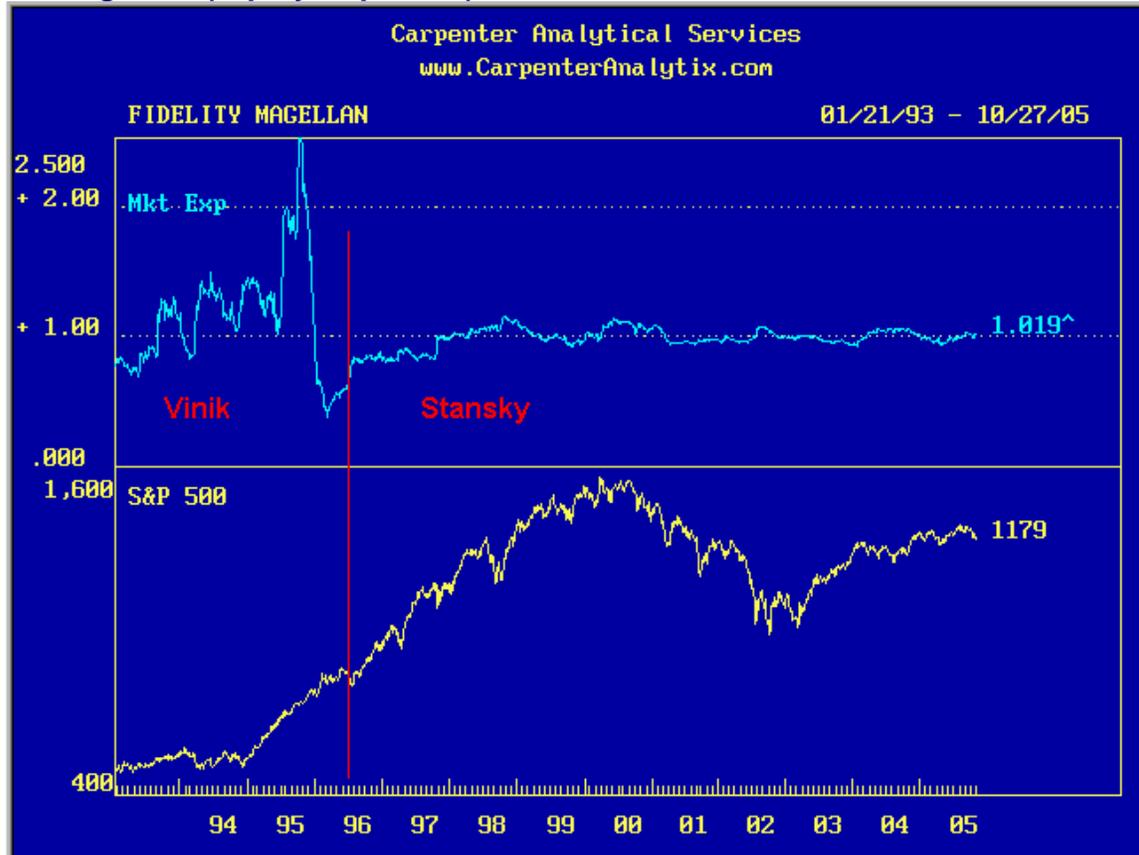
Hubris. Back before Stansky, Jeffrey Vinik ran the fund (1992-1996). The fund often clocked impressive gains, but Vinik finally succumbed to managerial hubris when his huge and impressive success in Tech stocks seems to have convinced him he really knew just when hot was hot, and when cold was cold. He backed away from stocks while the big bull market of the 1990s was just gathering steam. His huge and unsuccessful bet on bonds ultimately led to his departure.

Normalization. Vinik was replaced by Robert Stansky in June 1996. Stansky's core mission was to normalize the portfolio. Back out of the bonds; get back into stocks; no more huge bets, and no more wild deviations from market. Stansky accomplished the change methodically. Within months the fund was behaving normally...and then went on to get more and more “normal” over time, until finally it became essentially like an index fund.

“Closet indexing” is an easy allegation with any mega-fund, but isn't always valid. But here we track returns behavior objectively. Indexing behavior is characterized (primarily) by three metrics; R^2 close to 1.00 (returns nearly 100% explained by the market), beta at or close to 1.00 (volatility about like the market), and alpha at or close to zero (selection effects are inconsequential). At *CarpenterAnalytix* these metrics are tracked in continuous *Stat Paths*, showing *how* management and strategy are evolving, as they're evolving...as shown on following pages for Stansky and Lange.

Moving Beta. The blue *Stat Path* in top frame below shows how *Magellan's* equity exposure has evolved over time. In the Vinik era (left of red vertical), exposure varied widely, responding both to volatility changes of stocks in portfolio, and to changes of asset mix. Throughout 1995 the fund was far above-market beta, and at one point that year we clocked it at more than 2.50x market. This high exposure bet was wildly successful as the S&P gained 34% that year.

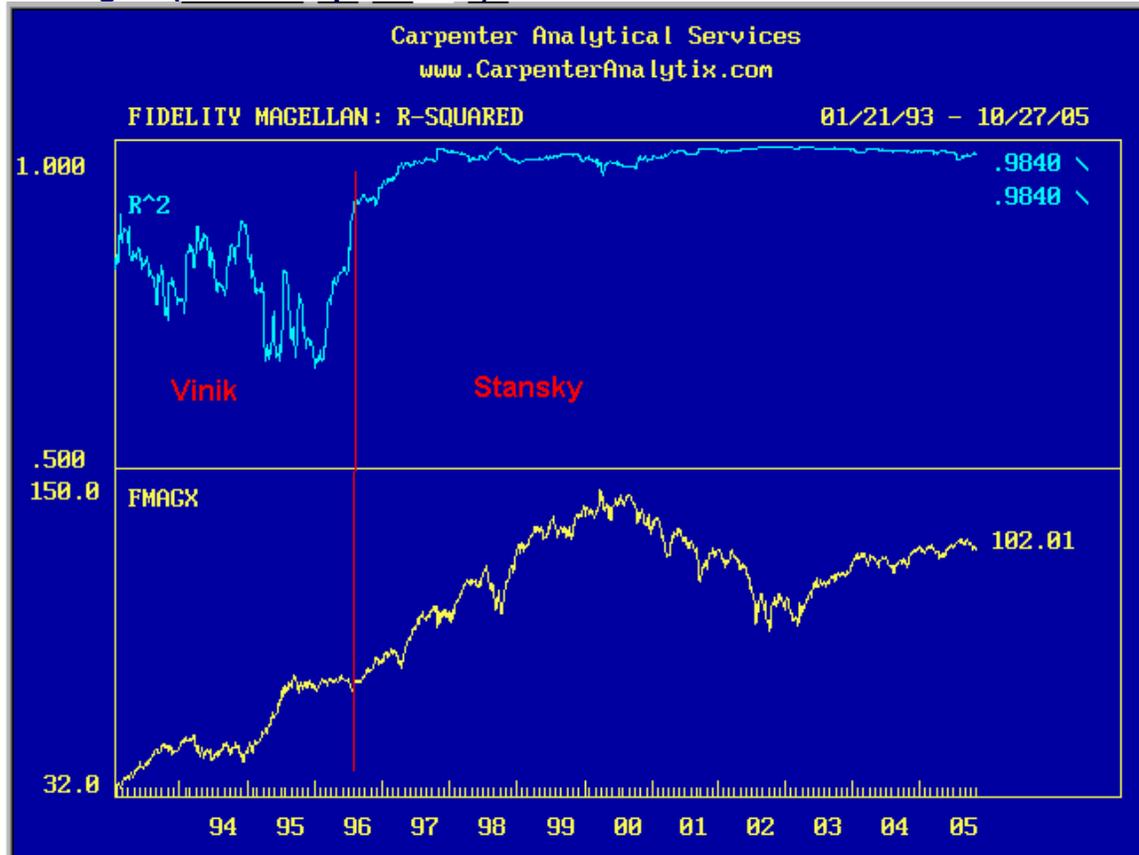
Moving Beta (Equity Exposure)



Stocks were sold off fiercely starting in late '95. By the second week of 1996, beta had been cut to less-than-market exposure, and by March it was down to about *half* of market exposure. This was in Jeff Vinik's big bond bet. But stocks continued climbing, and by mid-year Vinik was gone.

Robert Stansky was named manager in June 1996, and started raising equity exposure immediately. After a beta plateau around .80 for more than a year, exposure was further raised to market parity (1.00) in late 1997, and higher (1.15) in the market correction of 1998. Further exposure "timing" persisted until the bear market got underway in earnest in 2001....when beta variation began cleaving to parity level ever more closely and consistently, and that market-parity behavior has persisted to date.

Moving R² (Market Dependence)



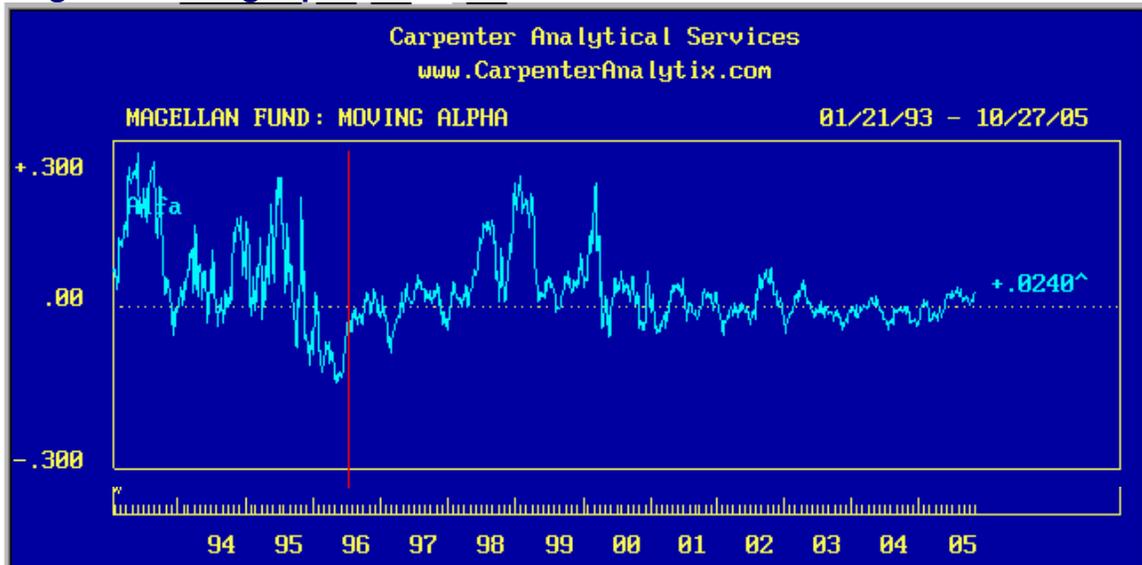
Moving R-Squared. Strategy changes are also apparent in the *Stat Path* of moving R-squared, showing the percent of total variance explained by market fluctuation. In the Vinik era we see notable variation from about .65 to .90, reflecting massive shifts between asset classes. The degree of micro-fluctuation is also notable, as portfolio characteristics undergo continual active change.

Then after Stansky arrives, the .90 level that had been like a ceiling becomes more like a floor. After about a year of gradually growing more market-like, from 1998-on, market fluctuation accounts for more than 95% of *Magellan* returns. We find a brief hesitation in this new behavior as the market reaches a top in 2000. But as the bear market got underway in earnest, the fund grows more and more market-like, reaching 99.4% R² in 2002.

Magellan has gotten very slightly more “independent” (of market dominance) in recent months, but even here at the new handover to Harry Lange, the latest reading still shows 98.4% of returns variation remains market-index-driven.

Moving Alpha. Alpha measures the non-market-driven component of returns. After removing market and volatility components, the alpha residual reflects the selection productivity of a portfolio. Random selection would generate a zero alpha on average, as would a market-duplicating index strategy. The alpha plot below shows how historically positive *Magellan* alpha has decayed toward zero.

Magellan Moving Alpha.



The Vinik era (left of red vertical) shows a volatile alpha with a sizeable positive bias until his final months. The average alpha for the Vinik period shown (1993-June 1996) is better than 10%, which is quite substantial as an add-on to the market-generated returns driven by beta. The Vinik alpha was almost entirely non-negative...except in those final months of the failed bond bet.

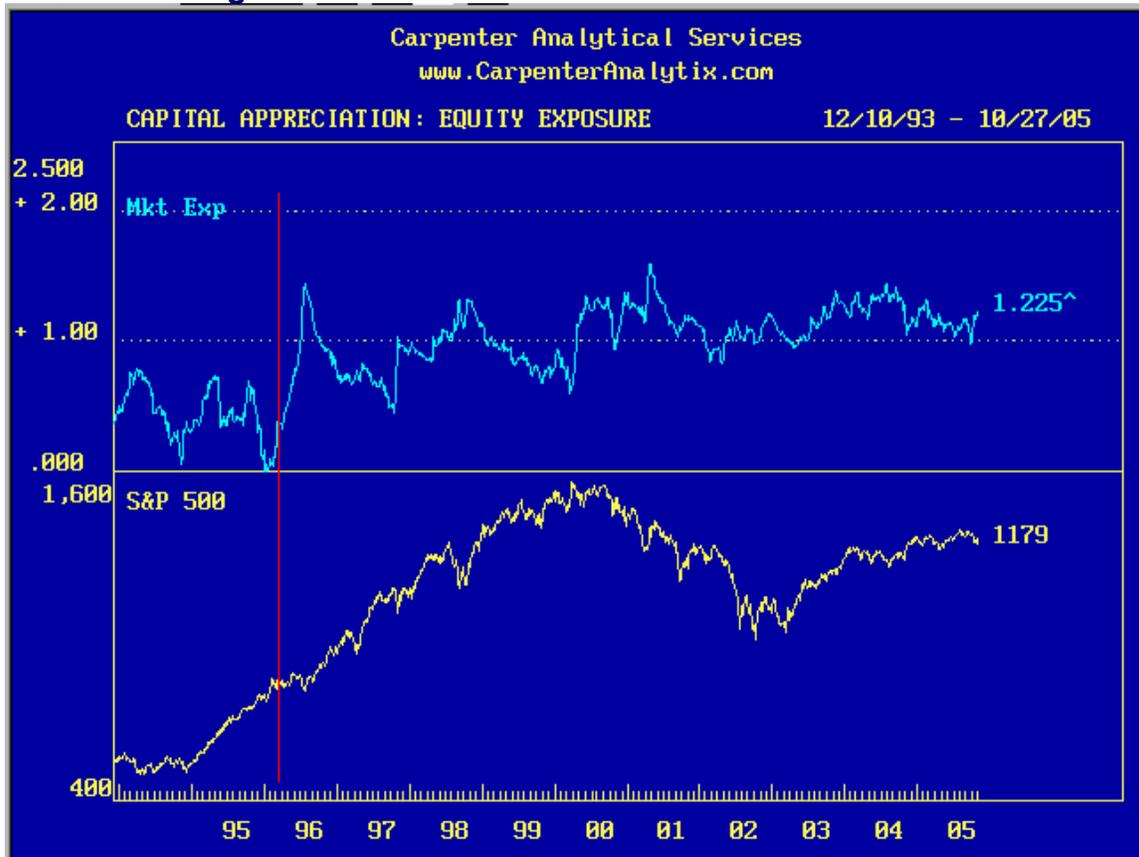
When Stansky arrived in mid-1996, the alpha quickly converges toward zero, and shows far less variability. In 1998 (and early 1999) the fund made some notable alpha gains, even occasionally returning to Vinik-type alpha generation.

Through the 2000-2002 bear market, *Magellan's* alpha looks nearly neutral again. In fact, the average alpha is positive through the bear market, generating excess annualized return of about 60 basis points from Q3/2000 through Q1/2003.) But instead of surging as the market renewed its advance, *Magellan's* alpha became even more narrowly bound, and turns negative on average. The alpha averaged a *negative* 47 basis points from spring of 2003 to date. But the predominant alpha characteristic of recent years is just that it stays near zero.

Walks Like a Duck. Being 98% market-dependent, with beta at unity, and alpha converging on zero, *Magellan* has clearly migrated into index behavior. Now comes Harry Lange to manage it; will his re-assigned performance help? Our analysis of his *Capital Appreciation Fund* suggests that it will help, as shown on the final two pages....

Fidelity Capital Appreciation Fund. Harry Lange took over FDCAX in March 1993 (red vertical on graph). In the dozen years since then, the moving beta has averaged 1.05x market, but has ranged quite widely (typically 0.50 to 1.50) as the exposure path shows. A conservative beta bias (exposure less than unity) prevails in the latter years of the bull market, then a generally aggressive bias (exposure greater than unity) emerges in the bear market and recovery.

FDCAX: Moving Beta

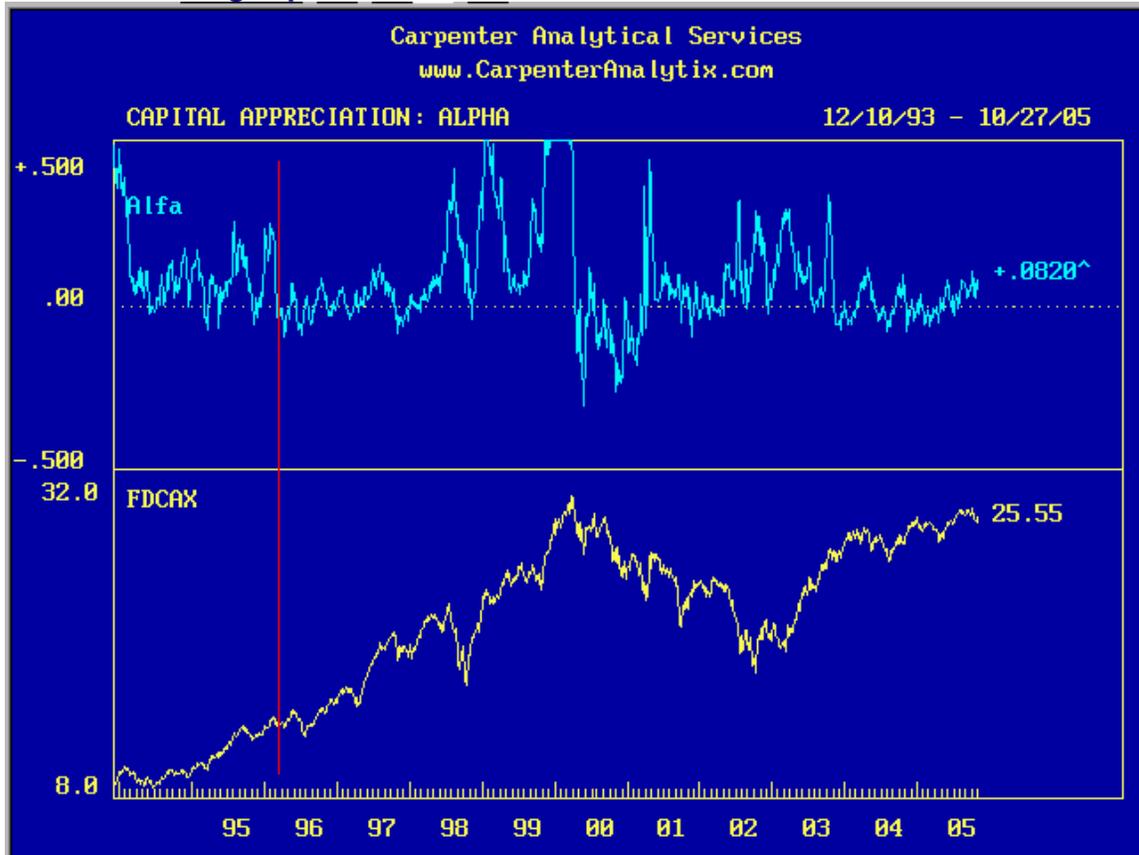


Some “timing” behavior is evident, as exposure tends to decline as prices advance and rise as the market falls. As is often true in funds showing this behavior, these adjustments tend to be “early.” The pattern works well in brief corrections (or brief rallies), but can be costly in prolonged reversals. The broadest example of this pattern appears in 2000-01 as exposure was raised to new highs almost as soon as the market weakness emerges, and stays above-par as the market falls away for many months. As a result of such beta variation, returns have been pared by about 1.7% a year from 1996 to date.

FDCAX beta averaged 1.18 across the last three years, and stands at 1.23 at end of October. We expect similar position and behavior will soon carry over to *Magellan*, giving higher and more variable volatility. And then there is alpha....

Positive Alpha. Lange's alpha was somewhat restrained in his first couple of years at the fund (1996-97). But alpha went wildly erratic (and wildly positive) in 1998-99-00, indicating remarkable selection effect as the market approached its apex blow-off. The upside alpha range is truncated in the following graph.

FDCAX: Moving Alpha



After initial problems in the early bear market, FDCAX managed to restore significant positive alpha almost continuously in 2001-02-03. Long-term alpha since 1996 has averaged a remarkable 8.7%. Recent times have been less productive but still favorable, at 4.9% over the last three years to October 31.

What To Expect. As Harry Lange transfers to *Magellan*, we expect the basic patterns of *Capital Appreciation* will transfer with him. *Magellan's* equity exposure and volatility should increase, perhaps by about 20%. The *variability* of equity exposure will also rise, but probably not up to the variability evident in his prior fund. With a more variable beta, investors should no longer assume they "know" the current risk without real-time monitoring. As for alpha, Lange's recent average (about 5%) should be applicable for some portion of the portfolio, and index performance (about zero alpha) should apply to the balance. So it's reasonable to look for about 1% to 3% alpha overall.

For *Magellan* updates, or *Path Stats* on other funds, go to [contact](#) at CarpenterAnalytix.